

SASKATCHEWAN DISEASE CONTROL LABORATORY NEWSLETTER

5 Research Drive, Regina, SK S4S 0A4 (306) 787-3131

NEWS FROM THE SASKATCHEWAN DISEASE CONTROL LABORATORY

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Attachments

- ◆ Yellow Closure Memo
- ◆ How to collect an acceptable blood spot specimen
- ◆ Freezing TBII
- ◆ Viral Infections 2011

SDCL Address:
5 Research Drive,
Regina, SK S4S 0A4

Highlights of This Newsletter:

On Page 2: Update for **Hepatitis B and Rubella antibody testing**. The reference ranges for test interpretation have changed.

On Page 3: Update on **Newborn Screening**. All babies presenting with **Meconium ileus** must have a DNA test for **Cystic Fibrosis** in addition to routine screen for **Immuno-Reactive Trypsinogen**.

On Page 4: **New Colour Coded Containers** for those submitting stool samples.

On Page 5: A discussion of changes for treatment of ***Neisseria gonorrhoeae***.

On Page 7: An introduction to the **MycoPak**, an improved system for submission of skin scrapings, hair, and nail clippings to SDCL.

NOTICE: If you want to receive future SDCL Newsletters by email (rather than hard copy), please fax back the attachment titled "Request for Electronic Copy" to (306) 787-1525.

Medical Laboratory Reports Returned To SDCL

In many instances, copies of laboratory reports, requested by the ordering physician to be sent to alternate physicians or specialists, precede the patient's actual visit to the office and are subsequently being returned to Saskatchewan Disease Control Laboratory. In the interests of providing the best care possible for patients, please check to determine if the patient will be visiting a physician at your clinic in the foreseeable future prior to returning the report to SDCL.

Yellow Closure Ties to Flag STAT, Outbreak & Time Sensitive Specimens:

To assist SDCL in identifying a specimen transport tote that contains a stat, outbreak and/or time sensitive specimen(s), as per the attached memo, please use a yellow closure tie on the totes to flag such samples.

SDCL Compendium Update:

- The SDCL Compendium is available on-line at <http://www.health.gov.sk.ca/compendium>
- The Compendium has been updated to include a **SEARCH** button on the first page.
- The Compendium will be updated monthly.
- Paper copies are no longer available from the SDCL.



UPDATE ON HEPATITIS B ANTIBODY TESTING

*"reference
ranges for
Hepatitis B
Surface antibody
have changed."*

Update on hepatitis B antibody testing:

1. If testing for current or ongoing infection is required, the test ordered is Hepatitis B Surface Antigen (HBsAg). It is a marker of infectivity. Its presence indicates either acute or chronic hepatitis B virus (HBV) infection.
2. If testing for evidence of previous infection is required, the test ordered is Hepatitis B Core Total Antibodies (anti-HBc). It is not a marker of vaccine-induced immunity.
3. In elderly patients it is not unusual for Hepatitis B surface Antibody (anti-HBs) to decline. Those who are positive for Hepatitis B Core Total Antibody do NOT need to be immunized.
4. Hepatitis B Surface Antibody is a marker of immunity. Its presence indicates an immune response to HBV infection, an immune response to vaccination, or the presence of passively acquired antibody.

Tests	Results	Interpretation
HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative positive positive or negative	Immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	Immune due to Hepatitis B vaccination

On February 2, 2012 the reference ranges for Hepatitis B Surface antibody changed from:

<= 10 mIU/mL - Non-Immune
11 - 15 mIU/mL - Borderline Protective Level of Antibody Present
>16 mIU/mL - Immune

to:

<10 mIU/mL - Non-Immune
≥10 mIU/mL - Immune

UPDATE ON RUBELLA ANTIBODY TESTING

*"reference
ranges for
Rubella IgG
antibody have
changed."*

Update on Rubella Antibody Testing:

All women who are pregnant for the first-time, or considering becoming pregnant for the first-time, should be tested for immunity to Rubella (German Measles). A blood specimen is tested to see if a sufficient amount of antibody is present in the blood to protect the pregnant woman and the fetus. The aim of screening is to identify women who have not been immunized or have diminished immunity and are susceptible to contracting rubella, so they can be immunized in the postnatal period to protect future pregnancies.

All prenatal samples submitted to the SDCL are automatically tested for immunity to Rubella (German Measles).

On February 2, 2012, the reference ranges for Rubella IgG antibody changed from:

< 10 mIU/mL - Non-Immune
10 - 19.9 mIU/mL - Borderline
Protective Level of Antibody Present
≥20 mIU/mL - Immune

to:

<10 mIU/mL - Non-Immune
≥10 mIU/mL - Immune



UPDATES ON NEWBORN SCREENING

(1)

Update on Sample Requirements for Newborn Screening:

- a) Blood specimens for newborn screening should be collected on filter paper by heel stick as per Appendix A of the Compendium of Tests (attached). The sample is submitted on neonatal screen card 2012-10, ref 10534358. All of the newborn screening tests are done on the same sample.
- b) Timing of testing:
 - i) The optimal time period for obtaining a sample is between 24 to 72 hours after birth.
 - ii) SDCL makes every effort to have analytical results available within 168 hours of birth. This allows
- iii) Repeat samples should be obtained as soon as possible upon request.
- iv) All samples should be transported to the SDCL in a timely manner (ideally sent within 24 hrs. of collection).
- v) For premature babies, defined as either less than 37 weeks or less than 2500 grams, or both, there is a high false positive rate. The second follow up test should be done before discharge when the baby is greater than 2500 grams in weight.

(2)

Additional Screening for Cystic Fibrosis in infants with Meconium Ileus:

Babies presenting with meconium ileus at birth have an increased risk of having Cystic Fibrosis (CF), and need to be further investigated to rule out the possibility of CF. All babies that present with meconium ileus must have a DNA test for CF in addition to the routine IRT done on every baby.

*"flag screening
cards of infants
with Meconium
ileus"*

In the Province of Saskatchewan Immuno-Reactive Trypsinogen (IRT) is a routine part of the Newborn Screening Program and helps identify infants at an increased risk of cystic fibrosis.

Testing for Cystic Fibrosis (CF) by measuring IRT after birth is not a diagnostic but a screening test. There is slight but real possibility that a positive IRT test is obtained in a baby that does not have CF. When diagnosing CF, the testing algorithm of the Saskatchewan Newborn Screening program therefore, includes a second IRT, CF gene mutation testing, and/or sweat chloride testing.

All babies that have a positive IRT test MUST be further investigated to determine if the baby does in fact have CF. Meconium ileus can be a clinical manifestation in approximately 20% of newborns with CF, and the IRT test is less reliable in detecting CF in such babies.

Meconium ileus is an obstruction of the intestine (ileus) due to overly thick meconium, the dark sticky material that is normally present in the baby's intestine at birth. After trypsin and other enzymes

from the pancreas have acted on is normally passed in the feces after birth. Meconium ileus results from a deficiency of trypsin and other digestive enzymes from the pancreas, as in cystic fibrosis

Because of the increase in CF in babies that present with meconium ileus further investigations are necessary. Normally, Immuno reactive Trypsinogen (IRT) levels are elevated at birth and remain elevated in infants with suspected cystic fibrosis. When an infant presents with a meconium ileus, the IRT may be falsely decreased. Infants must therefore be identified on the newborn screening card if there is a history of a true meconium ileus in order for DNA testing to be done as part of the newborn screen. Otherwise, the newborn screening specimen could be falsely reported as normal.



ENDOCRINOLOGY

Endocrinology:

Effective immediately, **17-ketosteroid test** is no longer offered at SDCL.

An alternative and more specific test for adrenal androgen function is serum Dehydroepiandrosterone Sulfate (DHEA-S).

DHEA-S is the most abundant C19 plasma steroid and the major source of urinary 17-ketosteroids. Measuring serum DHEA-S, therefore, can replace older urinary 17-ketosteroid determinations. This test is already performed at SDCL on serum.

A DHEA-S test may be ordered, along with other hormone tests, whenever excess (or, more rarely, deficient) androgen production is suspected and/or when a clinician wants to evaluate a person's adrenal gland function.

A normal DHEA-S level, along with other normal androgen levels, may indicate that the adrenal gland is functioning normally. Rarely, DHEA-S may be normal when an adrenal tumor or cancer is present but is not secreting hormones. With polycystic ovarian syndrome, DHEA-S may be elevated but may also be normal as this disorder is usually related to ovarian androgen production (primarily testosterone).

An elevated level of DHEA-S may indicate an adrenocortical tumor, adrenal cancer, or adrenal hyperplasia. An increased level of DHEAS is not diagnostic of a specific condition; it usually indicates the need for further testing to pinpoint the cause of the hormone imbalance.

A low level of DHEA-S may be due to adrenal dysfunction or hypopituitarism, a condition that causes decreased levels of the pituitary hormones that regulate the production and secretion of adrenal hormones

Reference:

Lobo, R.A., et al, (1981)
"Dehydroepiandrosterone Sulfate (DHEA-S) as an Indicator of Adrenal Androgen Function", *Obstet Gynecol*, Vol 57, 69-73, states "It is concluded that serum DHEA-S levels are much more conveniently measured than urinary 17-KS and should replace the latter because DHEA-S is a better indicator of adrenal "androgen" secretion."

"Effective immediately, 17-ketosteroid test is no longer offered at SDCL."

STOOL SPECIMEN CONTAINERS NOW COLOUR CODED

"SDCL is now supplying colour coded specimen containers for fecal specimen collection."

Stool Specimen Containers Now Colour-Coded

SDCL recently began supplying colour-coded specimen containers for fecal specimen collection.

Green top containers contain **Cary-Blair Transport Medium** and should be used to submit stools for bacterial culture.

Red Top Containers contain **SAF Preservative** and should be used to submit stools only for diagnosis of parasitic infections.

Yellow Top Containers contain **No Buffer or Preservative** and should be used to submit stools for viral culture, norovirus detection and *Clostridium difficile* toxin testing.

If you have a stock of old yellow top specimen containers containing SAF or Cary-Blair, please use these first.



GONOCOCCAL ANTIMICROBIAL RESISTANCE SURVEILLANCE IN SASKATCHEWAN

" should be
collected in
Amies Charcoal
Transport Media"

Gonococcal Antimicrobial Resistance Surveillance in Saskatchewan

SDCL monitors antimicrobial resistance in isolates of *Neisseria gonorrhoeae*. In recent years the number of isolates available for testing has declined. This is largely due to the increasing use of urine testing for gonococcal diagnosis. For this reason it is important that specimens for *N. gonorrhoeae* cultures should be collected in **Amies Charcoal Transport Medium** and submitted to the regional laboratory, especially under the following circumstances:

1. In men who have sex with men (MSM), cultures are recommended in symptomatic patients prior to treatment. Nucleic acid amplification testing (NAAT) should continue to be used for screening asymptomatic individuals. Due to increased sensitivity of NAAT over culture, both gonococcal culture and NAAT may be indicated.
2. For all cases, test of cure with an appropriate sample for gonococcal culture is recommended for any of the following situations:
 - i) All pharyngeal infections
 - ii) Persistent symptoms or signs post-treatment
 - iii) Cases treated using a regimen other than the preferred treatment
 - iv) Case who is linked to a drug resistant/treatment failure case and was treated with the same antibiotic.

NAAT tests should NOT be used for test of cure, and the isolate should be referred to SDCL for antimicrobial susceptibility testing.

During the three year period (2009 to 2011), 106 isolates were tested. All of the isolates were susceptible to cefixime and ceftriaxone. There has been no evidence to date of increasing MICs to these cephalosporins, as has been reported recently in the USA and elsewhere (Bala & Sood, 2010; Centers for Disease Control and Prevention, 2011a; Bolan *et al.*, 2012).

However, the Public Health Agency of Canada recommended recently that due to cefixime treatment failures reported

primarily in MSM, ceftriaxone 250 mg intramuscularly should be the preferred treatment for gonococcal infections in MSM, pharyngeal infection and in combination therapy for complicated cases such as pelvic inflammatory disease or epididymitis. Where oral cefixime is considered, the recommended single dose is 800 mg instead of 400 mg (PHAC, 2011).

Twelve isolates (11%) were resistant to ciprofloxacin. Quinolones such as ciprofloxacin and ofloxacin are not to be used as first line therapy for gonococcal infections in Canada (PHAC, 2011). If quinolones are used to treat gonorrhoea, a test of cure must be performed using culture, no sooner than 5 days after treatment (Expert Working Group, 2010).

Because of the possibility of co-infection with *Chlamydia trachomatis*, all patients with gonorrhoea should receive azithromycin 1 g in addition to cefixime 800 mg or ceftriaxone 250 mg. Oral doxycycline as an alternate treatment option for Chlamydia can be used at 100 mg twice a day for 7 days if compliance is not a concern (PHAC, 2011). While azithromycin 2 g orally on its own is effective against uncomplicated gonococcal infection, concerns over the ease with which *N. gonorrhoeae* can develop resistance to macrolides should restrict its use on its own for treatment of *N. gonorrhoeae* in patients with cephalosporin allergy. (Centers for Disease Control and Prevention, 2010). SDCL has recently begun to collect azithromycin resistance data on *N. gonorrhoeae* isolates, and to date 2/43 isolates (4.7%) have been resistant. If azithromycin 2 g is used to treat gonorrhoea, a test of cure must be performed using culture, no sooner than 5 days after treatment.

References:

- Bala, M., S. Sood (2010) Cephalosporin resistance in *Neisseria gonorrhoeae*. J Glob Infect Dis 2:284-290.
- Bolan, G. A., P. F. Sparling, J. N. Wasserheit (2012) The emerging threat of untreatable gonococcal infection. New England Journal of Medicine 366:485-487.



References continued

Centers for Disease Control and Prevention (2010) Sexually Transmitted Disease Guidelines, 2010. *Morb. Mortal. Wkly. Rep.* Vol 59: No. RR-12.

Centers for Disease Control and Prevention (2011a) Cephalosporin susceptibility among *Neisseria gonorrhoeae* isolates – United States, 2000-2010. *Morb. Mortal. Wkly. Rep.* 60:873-877.

Centers for Disease Control and Prevention (2011b) *Neisseria gonorrhoeae* with reduced susceptibility to azithromycin – San Diego County, California, 2009. *Morb. Mortal. Wkly. Rep.* 60:579-581.

Expert Working Group on the Canadian Guidelines on Sexually Transmitted Infections. 2010. Canadian Guidelines on Sexually Transmitted Infections. Public Health Agency of Canada, Ottawa, ON. Updated (<http://www.phac-aspc.gc.ca/std-mts/sti-its/pdf/506gonococcal-eng.pdf>)

Public Health Agency of Canada (2011) Important Notice - Public Health Information Update on the Treatment for Gonococcal Infection (<http://www.phac-aspc.gc.ca/std-mts/sti-its/alert/2011/alert-gono-eng.php>).

LYME DISEASE

*"...renewed
interest in Lyme
disease & its
diagnosis from
some members of
the public"*

Lyme Disease:

There is renewed interest in Lyme Disease and its diagnosis.

Lyme disease can present in a number of forms: early localized (erythema migrans), early disseminated (with neurological symptoms, carditis, or non-specific systemic symptoms), or as late disease, most commonly with pauciarticular arthritis (swelling, pain, and reduced range of motion) affecting large joints.

Currently, the risk for Lyme disease in Saskatchewan is almost zero. Since Lyme disease became reportable to public health in 1991, only two cases of Lyme disease have been identified in the province. One case that was identified in 2004 had a travel history to an endemic part of the USA. The second case, identified in 2011, was an individual who had traveled only in rural Saskatchewan.

The great majority of the ticks (> 97%) found in Saskatchewan are dog ticks, which do not carry the agent responsible for causing Lyme disease. Small numbers of blacklegged ticks (0.3%) have been submitted through the provincial surveillance program from all over Saskatchewan. These ticks are most likely carried to Saskatchewan by migrating birds and a small percentage of these may be infected with the agent that causes Lyme disease. The blacklegged ticks do not appear to have established themselves in Saskatchewan at this time. Exposure to blacklegged ticks can occur from early spring to late fall.

The SDCL follows the guidelines of Lyme Disease published by the Canadian Public Health Laboratory Network. This involves testing the patient's serum sample in a two-step process, using an ELISA assay performed at the SDCL and a confirmatory test performed at the Public Health Agency of Canada's National Microbiology Laboratory in Winnipeg. Positive test results from US laboratories that do not use methods validated by the Centers for Disease Control and Prevention should, in general, be confirmed through repeat testing through the SDCL. This ensures a combination of tests that is approved for use in Canada by Health Canada's Medical Devices Bureau, which will meet the Canadian case definition for reporting Lyme disease.

In difficult situations, referral to an infectious disease specialist may also be warranted.

References:

Canadian Public Health Laboratory Network. The laboratory diagnosis of *Lyme borreliosis*: Guidelines from the Canadian Public Health Laboratory Network. *Can J Infect Dis Med Microbiol* 2007; 18:145-148.

More information on Lyme can be assessed at: Saskatchewan Ministry of Health: <http://www.health.gov.sk.ca/lyme-disease>



SCRAPE & CLIP YOUR SPECIMENS INTO OUR NEW MYCOPAK

Scrape and Clip Your Specimens into our New MycoPak

Itchy, scaly skin and thickened, discoloured nails may be signs of a fungal infection. Laboratory testing can provide an accurate diagnosis and guide appropriate treatment. The SDCL has introduced a new specimen collection kit, the MycoPak, which includes everything you need to submit skin scrapings, hair, scalp scales, and nail clippings.

Specimen Collection with the MycoPak:

- Unfold the black paper provided in the MycoPak
- Place the aseptically collected specimen material on the black paper
- Re-fold the black paper, being

careful not to lose any of the specimen material

- Do not use tape, staples or adhesives to secure the specimen, just place the folded paper into the small envelope
- Label the envelope with the Patient Name, Date of Birth and Health Card Number (PHN)
- Place the small envelope into the plastic bag
- Seal the plastic bag and slide it into the large envelope
- Complete the SDCL Test Requisition form
- Fold the Requisition Form and slide it into the large envelope
- Seal the large envelope and submit it for testing - it's already pre-labeled with the SDCL address!

PMA/PMMA CONFIRMATION AVAILABLE AT SDCL

PMA/PMMA Confirmation Available:

Recent deaths in Canada (8 in southern Alberta and several in B.C.) associated with PMMA/Ecstasy have illustrated the tragic reality of street drug use

What are PMA and PMMA? PMA (paramethoxyamphetamine) and PMMA (paramethoxymethamphetamine) are in the same class of drugs as MDMA or "Ecstasy" (3,4-methylenedioxy-methamphetamine). PMA is also known by the street name "death" or "Dr. Death". As with MDMA, these drugs tend to be distributed in colourful, branded tablets and are taken by mouth.

Although they are different drugs than MDMA, PMA/PMMA is often sold as "Ecstasy" or an "Ecstasy substitute". Buyers may think they are getting MDMA, when in fact they are getting PMA/PMMA or some combination of different drugs. In other cases, users may be prompted to take PMA/PMMA together with MDMA to enhance the effects.

PMA/PMMA is considered to be more toxic than MDMA, more likely to cause side effects including **seizures** and **increased body temperature**. Also, the initial effects of PMA/PMMA are often delayed and milder than MDMA, leading users to believe they have taken a weak MDMA product. Users will then often take more of the drug in an attempt to get the desired effects.

Whether used on its own, or in combination with other medications (including anti-depressants), significant and life-threatening health consequences are a very real danger when taking any PMA/PMMA.

In emergency room settings PMA/PMMA will be detected using most POCT drug testing systems as methamphetamine. Mass spectrometry is required to determine the actual identity (e.g. PMMA or MDMA etc.).

Specimens should be sent to SDCL clearly identified as potentially positive for PMMA or PMA for unambiguous confirmation by tandem mass spectrometry.

CLIENT REMINDERS



Thyroid Receptor Abs/Thyroid Stimulating Immunoglobulins (TBII)

As per the information in SDCL's online compendium of tests, we are reminding clients to **please freeze** the Thyroid Receptor ABS/Thyroid Stimulating Immunoglobulins (TBII) specimens prior to shipping them to SDCL. This will improve the turnaround time for the TBII specimens, which we refer to Hospitals In Common Laboratory. For your convenience, attached is a copy of the compendium page with the collection and shipping instructions required for this specimen.



CONTACTS NUMBERS



*Which
Phone
Number?*

**REMEMBER
CALL
787-3131
for
information
from the
SDCL**

PAPER REQUESTS

The Saskatchewan Disease Control Laboratory (SDCL) phone tree (306) 787-3131 has been created to help assist with timely response to client inquiries. Provided is a list of the tree numbers and information that clients will access when choosing a number.

Hours of Operation: 8:00 a.m. to 5:00 p.m. Monday to Friday
7:30 a.m. to 4:00 p.m. Saturday
Evenings and Weekend Emergency and After Hours Service, see #8 for cell numbers.

Press 1: Test Results or to arrange STAT Testing

Identify who you are, institution and if you are calling for:

- Lab results;
- Specimen receipt and/or status;
- STAT testing (organ donors or needle stick exposure), call will be transferred to the appropriate section; or
- Requests for technical information, call will be transferred to appropriate section.

Press 2: Compendium Information (listen only) - To access the on-line compendium go to www.health.gov.sk.ca/compendium.

Press 3: Out of Province or Country Referrals - For information on tests referred out-of-province or country.

Press 4: Exceptions to Provide Missing Information - To provide missing specimen information that has been requested by SDCL staff.

Press 5: Maternal Serum Screening - For results on maternal serum screening samples submitted.

Press 6: Water Samples - For results on water samples submitted.

Press 7: Shipping and Supplies - For example, requests for requisitions or transport media such as SAF, Carey Blair or viral for specimens submitted to the Saskatchewan Disease Control Laboratory.

Press 8: Emergency and After Hours Service (Evenings and Weekend) (listen only)

STAT Toxicology	536-4653
STAT Serology/Prenatal results, organ donor testing & occupational exposure to blood borne pathogens	537-0639

If you wish to repeat this menu please stay on the line.

Paper Requests:

- Laboratory does not accept verbal test requests and requires you to fax in a request/requisition for any additional testing.
- If patient cannot be identified, as in "circle of care" then we require a "signed release of medical information form" faxed to us at (306) 787-9122.

REMEMBER Call (306) 787-3131 for information from the Saskatchewan Disease Control Laboratory.



MEMO: FLAGGING STAT, OUTBREAK & TIME SENSITIVE SPECIMENS

To: Regional Laboratory Staff

From: Darlene Miller, Manager Specimen Management, SDCL

Date: Sept 19, 2011

Saskatchewan Disease Control Laboratory (SDCL) is now providing a **yellow closure tie** to be used on Totes containing **STAT, Outbreak and Time Sensitive** specimens. When Totes are received at the laboratory (SDCL) flagged with a yellow closure tie, the tote contents will be fast-tracked to the testing areas.

Packaging Requirements

- STAT, Outbreak and/or Time Sensitive specimen(s) and requisition(s) must be put separately into a labelled (i.e. STAT) plastic bag and placed in the Rubbermaid container inside the tote for quick triage.
- All SDCL totes which contain STAT, Outbreak and/or Time Sensitive specimens must be closed with a **yellow** closure tie.

Implementation Date

October 1, 2011 – Referring facilities to start using **yellow** closure ties this day.

Notifications

Labs are to continue to notify SDCL as they currently do. STAT testing must be approved by the testing lab section at SDCL. Contact SDCL by phone for Outbreak notifications and time sensitive specimen shipments.

Distribution of **yellow** closure ties

For initial distribution SDCL will provide **yellow** closure ties to the regions through the Regional Laboratory Directors (Directors distribute within their region).

Additional closures may be ordered on the SDCL supply requisition. (Specify "**Yellow** closure ties" on a blank line).



PKU

HOW TO COLLECT AN ACCEPTABLE BLOOD SPOT SPECIMEN

1.0 SAMPLING TECHNIQUE



- 1.1 Cleanse infant's heel with 70% isopropyl alcohol (use only rubbing alcohol).

- 1.2 Allow heel to air dry.



- 1.3 The puncture should be made within the shaded area in the drawing above.



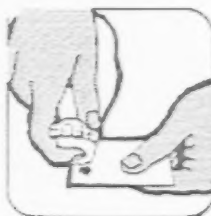
- 1.4 Using lancet provided, perform puncture as illustrated. WEARING GLOVES



- 1.5 Gently wipe off first drop of blood with sterile gauze or cotton ball. (Initial drop contains tissue fluids which may dilute sample).

- 1.6 Wait for formation of large blood droplet.

- 1.7 Apply gently pressure with thumb and ease intermittently as drops of blood form.



- 1.8 Touch printed side of filter paper card to the blood drop and fill each printed circle with a SINGLE application of blood. Observe the saturation of each printed circle as the blood flows through the filter paper. Spotting should be done only on the printed side.

- 1.9 Allow blood specimen to AIR DRY THOROUGHLY, on level non-absorbent open surface, such as a plastic-coated test tube rack, for minimum of 3 hours at ambient temperature (Do not stack or heat).

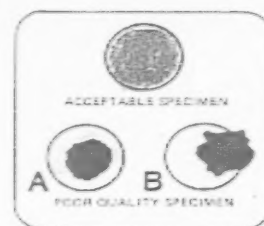
- 1.10 Place dried filter paper in mailing envelope provided for this purpose.

2.0 PITFALLS

- 2.1 Failure to wipe off alcohol residue may dilute the specimen and adversely affect test results.

- 2.2 Puncturing the heel on posterior curvature will permit blood to flow away from puncture, making proper spotting difficult. DO NOT LANCE ON PREVIOUS PUNCTURE.

- 2.3 Milking or squeezing the puncture may cause hemolysis and admixture of tissue fluids with specimen.



- 2.4 Do not layer successive drops of blood on the circle spot (Example A). If blood flow diminishes to incompletely fill circles, REPEAT sampling technique 1.1 thru 1.10. Note Example B for poor quality specimen with inadequate blood.

- 2.5 Avoid touching area within circle before collection and blood spots after collection on filter paper. Do not allow water, feeding formulas, antiseptic solutions, etc. to come into contact with the sample.

- 2.6 Do not place filter paper in the envelope until thoroughly dry.

- 2.7 INSUFFICIENT DRYING ADVERSELY AFFECTS TEST RESULTS.

Reference: Clinical and Laboratory Standards Institute (CLSI) Standards
For more information see CLSI - LA4-A5, Vol. 27 No. 20 page 15.

Questions about PKU or blood specimen contact Neonatal - Joyce Lepage (306)787-3142



Referrals

<i>Section</i>	Referrals
<i>Test</i>	Thyroid Receptor Antibody (R) (LATS) (Long Acting Thyroid Stimulator) (TBII) (Thyroid Stimulating Immunoglobulin) (TSH Receptor Antibody)
<i>Specimen</i>	1 mL Serum (SST)
<i>Collection</i>	Serum (SST): Collect blood in serum separator vacutainer (SST). Centrifuge. Aliquot required amount of serum into 12 x 75 mm plastic tube as soon as possible. Freeze specimen as soon as possible. If specimen thaws, it is unsuitable for analysis.
<i>Requisition #</i>	Referral Test Requisition
<i>Special Handling Instructions</i>	NOTE: Indicate patient's thyroid status including the presence of exophthalmos on the requisition.
<i>Shipping</i>	Send frozen. Referred to Hospitals In Common Laboratory, Toronto.
<i>Reference Values</i>	Detailed on report.
<i>Turnaround Time</i>	3 weeks

Laboratory Evidence of Human Viral Infections - # of Positive Findings 2011

Date	Adenovirus	Astro/Calicivirus	Coronavirus	Coxsackie virus	CMV	EBV	Echovirus	Enterovirus NT	Entero/Rhino	HAV	HBV	HCV	HIV-1	HSV-1	HSV-2	Influenza A	Pandemic (H1N1) 2009	Influenza B	MPV	Molluscum contagiosum	Norovirus	Parainfluenza	Parvovirus	RSV	Rotavirus	Rubella*	Varicella zoster	WNV
Jan-11	32		11	1	2	7		1		1	9	57	23	25	15	62	5		1		113	44	3	158	13		5	
Feb	16		5		1	5			7	2	6	59	25	29	9	88	22		4		58	17	4	241	22		4	
Mar	24				6	8				4	9	69	29	15	14	41	12	12	2		29	23	10	150	45		3	
Apr	23		1	1	7	5			5		7	57	20	17	13	14		68	7		28	19	18	68	63		5	
May	18		1		7	5		1	4	3	4	74	25	11	19	3	1	8	4		6	9	2	7	68	1	9	
June	14				4	5		2	8	3	9	67	26	15	13				1		17	6	1		43	1	6	
July	11			4		3			5	1	8	62	17	23	12				4		1	8	1		4		5	
Aug	21			6	4	9	2	1	16	3	12	81	15	22	23						9	6	1		2		2	
Sept	8			3	2	4		5	10	2	5	63	21	14	12						5	7	1		1		3	
Oct	21	1		5	6	6		8	16		13	70	30	11	15				5		2	15	1		1		3	
Nov	9			4	8	8		7	6	6	8	59	16	12	11				7		10	24	2		3	2	2	
Dec	18			2	5	14			2	9	6	66	19	15	12	33			30		16	38		1	4		3	
Totals	215	1	18	26	52	79	2	25	79	34	96	784	266	209	168	241	40	88	65	0	294	216	44	625	269	4	50	0



Facsimile Transmittal Sheet

Date: _____

To: Attention: Janette Romanuk
Saskatchewan Disease Control Laboratory

FAX #: (306) 787-1525

PH. #: (306) 787-8316

From: _____

FAX #: _____

PH. # _____

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